



Active Bacterial Core Surveillance (ABCs) Report

Emerging Infections Program Network

Legionellosis, 2011



ABCs Areas

California (3 county San Francisco Bay area); Colorado (5 county Denver area); Connecticut; Georgia (8 county Atlanta area); Maryland; Minnesota; New Mexico; New York (15 county Rochester and Albany areas); Oregon; Tennessee (20 urban counties)

ABCs Population

The surveillance areas represent 36,360,182 persons.
Source: National Center for Health Statistics bridged-race vintage 2011 postcensal file

ABCs Case Definition

Confirmed legionellosis case: A positive culture of any *Legionella* organism from a body site, detection of *L. pneumophila* serogroup 1 antigen in urine, or fourfold or greater rise in specific serum antibody titer to *L. pneumophila* serogroup 1 between acute and convalescent sera in a resident of a surveillance area in 2011.

ABCs Methodology

ABCs personnel actively contacted all laboratories serving persons in the surveillance area to identify cases. Standardized case report forms that include information on demographic characteristics, clinical syndrome, and outcome of illness were completed for each identified case. Regular laboratory audits assessed completeness of active surveillance and detected additional cases.

All rates of legionellosis were calculated using population estimates for 2011. For national estimates of cases, race- and age-specific rates of disease were applied from the aggregate surveillance area to the age and racial distribution of the 2011 U.S. population. Cases with unknown race were distributed by site based on reported race distribution for known cases within the nine age categories.[¶]

Reported ABCs Profiles

Sex	No.	(Rate [*])
Male	302	(1.7)
Female	180	(1.0)

* Cases per 100,000 population for ABCs areas

Race	No.	(Rate [*])
White	351	(1.3)
Black	126	(2.1)
Other	5	(0.2)

* Cases per 100,000 population for ABCs areas

Age (years)	Cases		Deaths	
	No.	(Rate [*])	No.	(Rate [*])
< 10	0	(0.00)	0	(0.00)
10-19	0	(0.00)	0	(0.00)
20-29	8	(0.21)	0	(0.00)
30-39	27	(0.44)	1	(0.02)
40-49	74	(1.53)	6	(0.11)
50-59	130	(2.60)	12	(0.23)
60-69	103	(3.24)	8	(0.23)
70-79	72	(4.17)	7	(0.38)
≥ 80	68	(4.47)	12	(0.93)
Total	482	(1.40)	46	(0.13)

* Cases or deaths per 100,000 population for ABCs areas

Site	Cases		Deaths	
	No.	(Rate [*])	No.	(Rate [*])
California**	11	(0.32)	3	(0.09)
Colorado**	29	(1.17)	3	(0.19)
Connecticut	82	(2.29)	6	(0.14)
Georgia**	24	(0.64)	1	(0.13)
Maryland	142	(2.44)	11	(0.20)
Minnesota	28	(0.52)	4	(0.06)
New Mexico	12	(0.58)	2	(0.00)
New York**	90	(4.14)	11	(0.28)
Oregon	22	(0.57)	2	(0.00)
Tennessee**	42	(1.10)	3	(0.05)
Total	482	(1.33)	46	(0.13)

* Cases or deaths per 100,000 population for ABCs areas

** Data from select counties

Testing Methodology	No.	(%)
Urine Antigen	465	(95.7)
Culture	48	(9.8)
Serology	4	(0.8)

Note: Some cases had more than one testing method

Illness Severity	No.	(%)
Hospitalization	476	(97.9)
ICU admission	187	(38.5)
Mechanical ventilation	130	(26.8)
Death	47	(9.7)

National Estimates of Disease

Cases: 4,108 (1.32/100,000)
Deaths: 402 (0.13/100,000)

Citation

Centers for Disease Control and Prevention. 2017. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Legionellosis, 2011.

Available via the internet: www.cdc.gov/abcs/reports-findings/survreports/leg11.pdf

Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Group A Streptococcus, 2010-provisional. Available via the Internet: <http://www.cdc.gov/abcs/reports-findings/survreports/gas10.pdf>. Ahmad Y, Gertz RE, Jr., Li Z, Sakota V, Broyles LN, Van Beneden C, Facklam R, Shewmaker PL, Reingold A, Farley MM, Beall BW. Revised 12/20/2011. Centers for Disease Control and Prevention. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Group A Streptococcus, 2005. Available via the Internet: <http://www.cdc.gov/abcs/reports-findings/survreports/gas05.pdf>. The Active Bacterial Core surveillance system in the United States performs active, population-based surveillance for IPD, which is defined as being present when pneumococcus is isolated from normally sterile body fluid or tissue, such as blood, cerebrospinal fluid or pleural fluid, in an individual who is resident in a surveillance area on the date of culture.^{3,12} We obtained data from. We adopted 2006 as the endpoint of the study because that year recorded the lowest incidence of IPD to date in the age group.³ Throughout the study period, the Active Bacterial Core surveillance system monitored IPD in all eight counties in the state of Connecticut and in 49 counties overall in the states of California, Georgia, Maryland, Minnesota, New York, Oregon and. The Active Bacterial Core surveillance (ABCs) program is a core component of the U.S. Centers for Disease Control and Prevention (CDC ABCs) Emerging Infections Programs (EIP), which is a collaboration between CDC, state health departments, and universities. On this page: Surveillance Activities. Data. Special Studies. Publications. Determine the incidence and epidemiologic characteristics of invasive disease due to the above organisms in multiple large diverse U.S. populations. Determine molecular epidemiologic patterns and microbiologic characteristics of public health relevance for isolates causing the above invasive infections. Provide an infrastructure for further research, such as special studies aimed at identifying risk factors for disease and post-licensure evaluation. Outbreaks of legionellosis are reported through the Waterborne Disease Outbreak Surveillance System (WBD OSS), established in 1971. Monitoring of waterborne legionellosis outbreaks began in 2001. Passive surveillance systems are believed to under-report disease incidence, especially of non-mandatory infections [8]. Our early work has illustrated an approach to link surveillance and hospitalisation records to assess the degree of agreement between two data sources [Reference Mor30]. By comparing the number of reported cases with the number of hospitalised cases for the same infection, we identified municipalities that significantly deviated from the typical experience in the state and might be under-ascertaining cases [Reference Mor30]. During 2000–2011, passive surveillance for legionellosis in the... In 2011, a system of active, population-based surveillance for legionellosis was instituted through CDC's Active Bacterial Core surveillance (ABCs) program. Overall disease rates were similar in both the passive and active systems, but more complete demographic information and additional clinical and laboratory data were only available from ABCs. ABCs data during 2011–2013 showed that approximately 44% of patients with legionellosis required intensive care, and 9% died. Disease incidence was higher among blacks than whites and was 10 times higher in New York than California. Laboratory data indicated a reliance on urinary antigen testing, which only detects *Legionella pneumophila* serogroup 1 (Lp1).